10701045 INTEGRATED THERMAL SENSOR FOR MICROWAVE TRANSISTORS

Type	L#	Hits	Search Text	DBs	Time Stamp	Comments
BRS	L2	1	((transistor with (THERMAL near2 SENS$3)) with varactor) or ((transistor with (temperature near2 SENS$3))with varactor)	US-PGPUB; USPAT	5/10/05 12:43	considered.
BRS	L1	3	((INTEGRATED with (THERMAL near2 SENS$3)) with varactor) or ((INTEGRATED with (temperature near2 SENS$3))with varactor)	US-PGPUB; USPAT	5/10/05 12:54	browsed.
BRS	L3	25	((THERMAL near2 SENS$3) with varactor) or ((temperature near2 SENS$3) with varactor)	US-PGPUB; USPAT	5/10/05 12:55	
BRS	L4	21	3 not 2 not 1	US-PGPUB; USPAT	5/10/05 12:56	browsed.
BRS	L5	22	(MICROWAVE ADJ2 POWER WITH SENS$3) AND (("374").CLAS.)	US-PGPUB; USPAT	5/10/05 13:52	
IS&R	L6	3179	((374/185) or (374/183) or (374/112) or (374/166) or (374/163) or (374/141) or (374/152)).CCLS.	US-PGPUB; USPAT; USOCR	5/10/05 13:52	
IS&R	L7	1312	((327/512) or (327/513)).CCLS.	US-PGPUB; USPAT	5/10/05 13:52	
BRS	L9	37	L7 and (tuning or tuner) not L6 not L8	US-PGPUB; USPAT	5/10/05 13:52	
BRS	L10	135	L7 and bridge	US-PGPUB; USPAT	5/10/05 13:53	
IS&R	L11	740	(331/176).CCLS.	US-PGPUB; USPAT	5/10/05 13:53	
IS&R	L12	788	(331/177v).CCLS.	US-PGPUB; USPAT	5/10/05 13:53	
BRS	L14	9	(9 or 10) and varactor	US-PGPUB; USPAT	5/10/05 13:54	
BRS	L15	0	(MICROWAVE ADJ2 POWER WITH SENS$3) AND (11 or 12)	US-PGPUB; USPAT	5/10/05 13:55	
BRS	L16	95	(MICROWAVE and temperature) AND (11 or 12)	US-PGPUB; USPAT	5/10/05 13:56	
BRS	L17	233	(varactor and temperature) AND (11 or 12)	US-PGPUB; USPAT	5/10/05 13:56	
BRS	L19	56	16 and 17	US-PGPUB; USPAT	5/10/05 14:53	see below....
BRS	L13	1	(9 or 10) and (11 or 12)	US-PGPUB; USPAT	5/10/05 13:56	finds US 4369417 A
BRS	L8	1	(MICROWAVE ADJ2 POWER WITH SENS$3) AND L7 not L5	US-PGPUB; USPAT	5/10/05 14:16	considered previously
BRS	L20	285425	matching or VSWR	US-PGPUB; USPAT	5/10/05 14:18	
BRS	L21	55	20 and 17	US-PGPUB; USPAT	5/10/05 14:19	see below...
BRS	L22	20	20 and 17 and 16	US-PGPUB; USPAT	5/10/05 14:27	browsed
BRS	L23	35	20 and 17 not 16	US-PGPUB; USPAT	5/10/05 14:27	browsed
BRS	L24	36	19 not 21	US-PGPUB; USPAT	5/10/05 14:53	
BRS	L25	3	16 and 20 not 17	US-PGPUB; USPAT	5/10/05 15:31	browsed
IS&R	L26	3	(("6603367") or ("4827226") or ("5994970")).PN.	US-PGPUB; USPAT	5/10/05 15:32	note - related or discussed in another considered today.
BRS	L27	63	(US-20010004236-$ or US-20040057495-$ or US-20040105485-$ or US-20040213322-$ or US-20040188795-$ or US-20050009472-$ or US-20040002316-$ or US-20030137361-$ or US-20020084860-$ or US-20020000887-$ or US-20020060613-$ or US-20010033203-$).did. or (US-3678348-$ or US-4023094-$ or US-4080829-$ or US-4143549-$ or US-4415790-$ or US-4733170-$ or US-4741476-$ or US-4789823-$ or US-4936144-$ or US-5159277-$ or US-5291073-$ or US-5302024-$ or US-5370458-$ or US-5406841-$ or US-5410912-$ or US-5444219-$ or US-5520047-$ or US-5563760-$ or US-5601363-$ or US-5795069-$ or US-5877637-$ or US-5909132-$ or US-6230560-$ or US-6767129-$ or US-6873170-$ or US-6841843-$).did. or (US-6066989-$ or US-6724272-$ or US-6271736-$ or US-5915213-$ or US-5912595-$ or US-4719434-$ or US-4369417-$ or US-4642580-$ or US-6838951-$ or US-6653906-$ or US-6466099-$ or US-6362699-$ or US-6091309-$ or US-5719782-$ or US-5379003-$ or US-5025231-$ or US-4924195-$ or US-4011526-$ or US-6603367-$ or US-5055889-$ or US-5994970-$).did. or (US-1994757-$ or US-2050878-$ or US-3531990-$ or US-RE27458-$).did.	US-PGPUB; USPAT; USOCR	5/10/05 15:34	tagged up until now.
BRS	L28	23	27 AND (11 or 12)	US-PGPUB; USPAT	5/10/05 15:36	tagged from 331 subs of today.
BRS	L29	8	(US-6603367-$ or US-6466099-$ or US-6362699-$ or US-6091309-$ or US-5994970-$ or US-5912595-$ or US-5055889-$ or US-4369417-$).did.	USPAT	5/10/05 15:37	tagged as particularly relevant today.
BRS	L30	8	(US-4369417-$ or US-6362699-$ or US-6091309-$ or US-4924195-$ or US-6603367-$ or US-4719434-$ or US-5994970-$ or US-5912595-$).did.	USPAT	5/10/05 16:11	plan to cite these.

	Remove	Document ID	Image Document ID	Source	Page#	Comment
1	☐	US 4369417 A	US 4369417	US Full	2	transistor T1 (Fig. 1), having an output electrode (the collector) coupled to a tuning circuit (Col. 2, Lines 40-45) via a coupling capacitor C1. The tuning circuit comprises a tunable element (tuning diode D1; Col. 2, Lines 46-63) controlled by a control signal from the tapping point of temperature responsive voltage divider R2, NTC (Col. 2, Lines 51-63).
2	☐	US 4369417 A	US 4369417	US Full	3	transistor T1 (Fig. 1), having an output electrode (the collector) coupled to a tuning circuit (Col. 2, Lines 40-45) via a coupling capacitor C1. The tuning circuit comprises a tunable element (tuning diode D1; Col. 2, Lines 46-63) controlled by a control signal from the tapping point of temperature responsive voltage divider R2, NTC (Col. 2, Lines 51-63).
3	☐	US 6362699 B1	US 6362699	US Full	1	(Empty)
4	☐	US 6091309 A	US 6091309	US Full	1	varactor 34 acts as a variable capacitor.
5	☐	US 4924195 A	US 4924195	US Full	1	Resistors 35 and 36 are chosen to set the optimum operating point of varactor diode 25. Matching varactor diode 24 is connected in series with diode 25, and temperature compensating voltage may be injected at the junction via input 33 and resistor 32, again in accordance with common practice.
6	☐	US 6603367 B2	US 6603367	US Full	3	(Empty)
7	☐	US 6603367 B2	US 6603367	US Full	1	(Empty)
8	☐	US 4719434 A	US 4719434	US Full	1	DOCUMENT-IDENTIFIER: US 4719434 A TITLE: Varactor trimming for MMICs Detailed Description Text - DETX (30): In addition, other circuit elements (not shown) can easily be added between bias voltage contact 134 and varactor 116, so that the common outputs 110 of temperature-sensing module 102 may be translated into different control voltages for each temperature compensating network within different MMICs.
9	☐	US 4719434 A	US 4719434	US Full	6	Fig. 6 shows transistor 104 and tuning circuit including varactor 116; temperature-sensing module 102
10	☐	US 5994970 A	US 5994970	US Full	1	(Empty)
11	☐	US 5912595 A	US 5912595	US Full	1	Generally, the output signal from a temperature sensor in the form of a thermistor network is used to generate the correction voltage applied to a varactor in order to maintain frequency stability.